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AUDITOR GENERAL

STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

WILLIAM THOMSON
DEPUTY AUDITOR GENERAL

August 31, 2007

The Honorable Robert Blendu, Chair
Joint Legislative Audit Committee

The Honorable John Nelson, Vice Chair
Joint Legislative Audit Committee

Dear Senator Blendu and Representative Nelson:

Our Office has recently completed a 6-month followup of the Arizona Department of Education—Information Management Function regarding the implementation status of the 32 audit recommendations (including sub-parts of the recommendations) presented in the performance audit report released in August 2006 (Auditor General Report No. 06-07). As the attached grid indicates:

- 7 have been implemented;
- 14 are in the process of being implemented; and
- 11 have not been implemented.

Our Office will continue to follow up at 6-month intervals with the Department on the status of those recommendations that have not yet been fully implemented.

Sincerely,

Melanie M. Chesney, Director
Performance Audit Division

MMC:Acm
Attachment

cc: Tom Horne, State Superintendent of Public Instruction
Arizona Department of Education

ARIZONA DEPARTMENT OF EDUCATION

INFORMATION MANAGEMENT

6-Month Follow-Up Report To Auditor General Report No. 06-07

FINDING 1: ADE needs to better manage security of its information technology systems and operations

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
1. ADE should develop and implement an ongoing process for addressing IT security vulnerabilities or control weaknesses when they are discovered. The process should ensure that known security concerns are evaluated and prioritized in order of risk, that specific plans to address them are developed, and that responsibility for correcting them is assigned.	Implementation in Process	ADE has taken some steps to address this recommendation including establishing a process for correcting Web application security vulnerabilities or other control weaknesses, such as network or process flaws. Additionally, ADE has started developing a security plan, and ADE's Quality Assurance (QA) team has received training on performing internal security assessments.
2. ADE should identify specific security objectives, assess its current set of policies and procedures against those objectives, analyze any gaps, consider the risk associated with each, develop a plan to implement effective policies and procedures, and monitor them on a regular basis.	Implementation in Process	Although ADE's security plan has not been completed, ADE has started the process by creating and editing security-related policies. Additionally, ADE reports that portions of this recommendation will not be completed until 2008 or 2009.
3. ADE should develop a process to identify and implement specific security guidelines for its systems, incorporate them within its systems development and testing process, and train its development and testing staff on security concerns and methods.	Implemented at 6 Months	
4. ADE should consider creating an appropriate position to be responsible for all IT security within ADE. The reporting line of the security position should be such that it can effectively design, implement, and enforce compliance with the organization's security policies, standards, and procedures, and ensure that they are functioning effectively.	Implemented at 6 Months	

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FINDING 2: ADE can further enhance SAIS' reliability

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
1. To improve SAIS data reliability, ADE should implement additional controls. Specifically, ADE should:		
a. Establish a department-wide comprehensive procedure for developing and implementing business rules;	Not Implemented	ADE has estimated that this recommendation will not be implemented until December 2009.
b. Implement automated variance checks by identifying appropriate staff to determine what types of variance checks should be added, as well as assigning responsibility for following up on any data variances that appear unreasonable; and	Not Implemented	Given current staffing levels, funding, and new project priorities, ADE has estimated that this item will not be completed until June 2010.
c. Add processing controls such as run-to-run totals and data reconciliation, and review information collected from the controls at least twice a month to help prevent potential problems with SAIS data.	Implementation in Process	<p>ADE has established a periodic notification process so that specific ADE units, such as the School Finance unit, are notified on a regular basis with total counts of SAIS data. In addition, staff from ADE's School Finance unit and IT section are working to develop a process to obtain more specific information about any processing problems, such as missing data, that will allow the School Finance unit to more quickly resolve problems.</p> <p>ADE has estimated that this recommendation will not be implemented until December 2008 because of staffing levels, funding, and new project priorities.</p>

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FINDING 2: ADE can further enhance SAIS' reliability (cont'd)

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
2. To help improve SAIS' functionality, ADE should:		
a. Obtain user acceptance of the one report that has been developed for archiving, and	Implementation in Process	ADE indicated that the archiving report that had been developed was not meeting users' needs and is therefore working to develop a solution that will meet users' needs.
b. Develop and implement other SAIS-archived reports.	Implementation in Process	ADE is seeking the funding to develop a data warehouse that will contain historical data that can be archived and later retrieved. ADE has proposed a June 2008 target date for completing the data warehouse project.
3. To address user concerns and identify additional ways to improve SAIS, ADE should:		
a. Establish a tactical team composed of representatives from ADE's IT section and both internal and external stakeholders to identify and prioritize its user community's needs; and	Not Implemented	ADE has set a March 2008 target date for implementing this recommendation.
b. Establish a schedule for implementing the agreed-upon SAIS changes.	Not Implemented	This recommendation cannot be implemented until Finding 2, recommendation 3 (a) is implemented.

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FINDING 2: ADE can further enhance SAIS' reliability (concl'd)

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
4. To improve SMS software performance, ADE should:		
a. Ensure the SAIS SMS software test environment is up-to-date and available when needed;	Implementation in Process	According to ADE and vendors, minimal changes were made to the SAIS system for the last school year and the software test environment was available in a timely manner. However, ADE reported that it plans to make major system changes every other year instead of annually. As such, additional time is required to determine whether the software test environment will be up-to-date and available for vendors when significant system changes are made.
b. Monitor software performance and take steps to address any problems identified; and	Not Implemented	As indicated in its response to the report, ADE believes additional resources are needed to implement this recommendation. ADE plans to request additional resources in its fiscal year 2009 Decision Package. If approved, ADE reported that this recommendation will be implemented around June 2009.
c. Consider establishing a recurring SMS software certification or rating process.	Not Implemented	As indicated in its response to the report, ADE believes additional resources are needed to implement this recommendation. ADE plans to request additional resources in its fiscal year 2009 Decision Package. If approved, ADE reported that this recommendation will be implemented around June 2009.

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FINDING 3: ADE needs to improve IT project management and operation oversight

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
1. ADE should develop, adopt, and enforce the use of a single, effective agency-wide SDLC process.	Implementation in Process	ADE has developed some aspects of a SDLC process, such as flowcharts outlining the process and a program change request form.
2. ADE should create a plan to review current applications' technical and user documentation:		
a. Determine what needs improvement in order to maintain the applications;	Not Implemented	According to ADE, it needs additional staff and resources to complete this recommendation, which it plans to request for fiscal year 2009. If approved, ADE indicated that the targeted completion date for this recommendation is around June 2011.
b. Address identified gaps; and	Not Implemented	According to ADE, it needs additional staff and resources to complete this recommendation, which it plans to request for fiscal year 2009. If approved, ADE indicated that the targeted completion date for this recommendation is around June 2011.
c. Prioritize and schedule improvement activities.	Not Implemented	According to ADE, it needs additional staff and resources to complete this recommendation, which it plans to request for fiscal year 2009. If approved, ADE indicated that the targeted completion date for this recommendation is around June 2011.

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FINDING 3: ADE needs to improve IT project management and operation oversight (concl'd)

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
3. ADE should identify, collect, and measure performance measurements for key IT functions and operations.	Implementation in Process	Although documents provided by ADE indicate that there are new plans to inform system stakeholders of systems issues, ADE has not yet identified or started monitoring key IT performance indicators.
4. ADE should develop a plan and address resource requirements to allow it to perform regular risk assessments of its IT systems and operations, and should develop procedures to address issues raised.	Implementation in Process	Although ADE has done an automated scan of its Web pages to identify security issues, ADE indicated that additional staff are needed to implement this recommendation.
5. ADE should fully develop a business continuity plan and should include provisions for regularly updating and testing the plan.	Implementation in Process	Although ADE is working on a business continuity plan, the plan only focuses on restoring information systems (commonly called an IT disaster recovery plan) and does not address the continuity of business operations, such as creating, disseminating, and testing employee procedures used to minimize the disruption to business operations if there was a disruption in IT services.

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FINDING 4: ADE needs to ensure its information technology meets its business needs

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
1. To ensure that IT can better meet ADE's mission and business needs, ADE should establish an IT steering committee that should include representatives from senior management, user management, and the IT function, such as the superintendent, and/or deputy superintendent, the associate superintendents, the CIO, and other key ADE stakeholders as appropriate.	Implementation in Process	According to ADE, the CIO has begun meeting with the associate superintendents to establish priorities and funding for the projects currently within the IT Project Portfolio. ADE reported that in the future these meetings will incorporate a broader range of participants, including representatives from outside the agency.
2. Once established, the ADE IT steering committee should:		
a. Ensure adequate IT involvement in the Department's and the divisions' planning processes;	Implementation in Process	ADE has established an IT steering committee consisting of ADE's deputy superintendent and an associate superintendent from each division. ADE's CIO met with the committee in May 2007 to establish priorities and funding for the projects currently within ADE's IT Project Portfolio. According to ADE, it plans to hold IT steering committee meetings every quarter. Therefore, at the next followup, sufficient time may have passed for auditors to verify whether this process is continuing.

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FINDING 4: ADE needs to ensure its information technology meets its business needs (cont'd)

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
b. Provide overall IT direction for the Department; and	Implementation in Process	The IT steering committee held its first meeting in November 2006, and ADE indicated that the IT steering committee is in a tactical planning stage. ADE anticipates that it will be at a strategic planning stage within the next 6 months. Therefore, at the next followup, sufficient time may have passed for auditors to verify whether the recommendation has been implemented.
c. Ensure that adequate processes exist for identifying priorities and funding, and allocating department-wide IT resource costs.	Implementation in Process	ADE has submitted a project portfolio to the IT steering committee for review and comment. However, the portfolio includes some projects without prioritization or funding. Additionally, because of the relatively new nature of the committee, the audit team determined that additional time is needed to verify that the project portfolio identifies priorities and funding.
3. To ensure that IT can effectively meet ADE's business needs, ADE should review the IT section's organizational placement within ADE.	Implemented at 6 Months	
4. ADE should ensure that the IT section establishes an effective planning process which includes:		
a. Developing, with input from key stakeholders, an IT plan that defines the long-term direction that aligns with ADE's business needs; and	Not Implemented	ADE reported that it has not yet started work on this recommendation, but will provide a full estimate of its activities for the 12-month followup.

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FINDING 4: ADE needs to ensure its information technology meets its business needs (concl'd)

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
b. Developing an action plan that first formulates strategies; evaluates costs, benefits, and possible consequences of alternative courses of action; considers the resources needed; assigns responsibility for implementation; defines the steps that must be finished to complete the plan; sets a time frame for completion; and determines the resources necessary to carry it out.	Not Implemented	ADE reported that it has not yet started work on this recommendation, but will provide a full estimate of its activities for the 12-month followup.

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FINDING 5: ADE not in full compliance with student-level data collection notification and disposal requirements

Recommendation	Status of Implementing Recommendation	Explanation for Recommendations That Have Not Been Implemented
1. ADE should finish compiling the list of data elements that it collects through SAIS and should:		
a. Include references to the statutory authority for gathering each piece of information, as required by A.R.S. §15-1042(E);	Implemented at 6 Months	
b. Include in its list other data elements collected for which there is no specific statutory reference and cite the reference for the process that ADE must perform, or otherwise describe how the data fills a need in the process in order to make SAIS complete; and	Implemented at 6 Months	
c. Establish a deadline to publish the information no later than by the end of fiscal year 2007.	Implemented at 6 Months	
2. ADE should adopt a retention schedule and guidelines to remove outdated student data from SAIS.	Implemented at 6 Months	